ENVIRONMENTAL INFORMATION DISCLOSURE

SECTION 1. PURPOSE AND SCOPE

Each electricity supplier or basic generation service provider serving retail customers in the state is required to disclose to such customers, including residential, commercial and industrial customers, a uniform, common set of information about the environmental characteristics of the energy purchased by the customer. The environmental information must be published in a standardized label format attached hereto as Exhibits A, B, and C and distributed as part of the customer's billing materials or in other mailings determined by the Board, and on customer contracts and marketing materials. This disclosure requirement is mandatory and applies to every electricity supplier and every electricity product, regardless of whether or not the supplier is making an environmental claim about the electricity product. The environmental information to be disclosed to the customer includes the following, as illustrated in Exhibits A, B, and C:

- 1) fuel mix associated with the generation of the electricity, including categories for coal, gas, hydroelectric (large), nuclear, oil and renewable energy, or regional average default values as determined by the New Jersey Board of Public Utilities (herein the "Board");
- 2) air emissions, in pounds per megawatt hour, of sulfur dioxide, carbon dioxide, oxides of nitrogen, and any other pollutant that are associated with the generation of the electricity and that the Board may determine to pose an environmental or health hazard, or emissions default values determined by the Board; and
- 3) the electricity supplier's support of energy efficiency, as reflected in the number of discrete emission reduction credits that are based on energy conservation measures and that are retired pursuant to rules and regulations adopted pursuant to P.L. 1995, c.188.

For the label in Exhibit A, the environmental information shall be values based on actual data; for the label in Exhibit B, the environmental information shall be a commitment by the supplier as to the electricity to be provided over the next year; and for the label in Exhibit C, the environmental information shall be default values or averages determined in accordance with this order.

Electricity suppliers shall be permitted to elect whether to sell their entire portfolio of electricity supply as a single electricity product or to disaggregate their portfolio into distinct electricity products in accordance with Section 6, subsection 5.

Environmental disclosure pertains to electricity purchases and not installed capacity purchases.

SECTION 2. IMPLEMENTATION SCHEDULE

The environmental disclosure standards set forth herein will be effective as regulations immediately upon adoption by the Board and will be effective for a period not to exceed 18 months. The Board may thereafter, in accordance with the procedures of the Administrative Procedure Act (P.L. 1968,

c. 410 (C.52:14B-1 et seq.)) re-adopt these standards, adopt these standards with amendments, or replace these standards with new standards.

As of August 1999, each electricity supplier is required to disclose environmental information to retail customers in its marketing activities in the State and when it solicits retail customers in New Jersey.

The Environmental Disclosure Program will be incrementally implemented. The Phase I period is projected to end by January 1, 2002, with the commencement of Phase II of environmental disclosure. Phase I shall consist of two parts: Phase I-A, during which electricity suppliers shall implement environmental disclosure independently; and Phase I-B, during which the Program Administrator shall assist in the implementation of environmental disclosure in accordance with the terms set forth in Appendix A. Notwithstanding the projected start date for Phase II, the Board recognizes the importance of having a full tracking system in place and functioning as early as feasible, and seeks means to implement Phase II as soon as possible. Phase II shall be implemented after successful testing of the full tracking system.

SECTION 3. DEFINITIONS AND ACRONYMS

A. For purposes of this section, the following definitions apply:

"Basic generation service" means electric generation service that is provided by a utility to any retail customer that has not chosen an alternative electric power supplier, whether or not the customer has received offers as to competitive supply options, including, but not limited to, any retail customer that cannot obtain such service from a non-utility electric power supplier for any reason, including non-payment for services. Basic generation service is not a competitive service and shall be fully regulated by the Board.

"Benchmark" means a reference point, describing emissions levels, to allow customers to make comparisons among alternative electricity products offered by suppliers. That is, a point of comparison for the air emissions associated with the electricity product being offered or sold to the customer. Initially, and until modified by Board order in consultation with the NJDEP, the specific benchmarks shall be based on the most recent data available from the Energy Information Administration and shall reflect the average emission rate of all electric generating units in New Jersey for SO_2 (i.e., 2.5 pounds per megawatt hour) and CO_2 (i.e., 1,213 pounds per megawatt hour); and NO_x (i.e., 3.0 pounds per megawatt hour). In the case of NO_x , the benchmark set forth in Appendix C takes into account the effect on this average of the new NO_x standards that first applied during the 1999 ozone season.

"Bilateral contract" or "bilateral wholesale contract" means a unit or system contract, or a contract for specified resources, between an electricity supplier and a generating company or between an electricity supplier and a wholesale power marketer.

"Contract for specified resources" means a contract between an electricity supplier and a generating company or wholesale power marketer:

- (i) in which the types of generating resources that may supply the electricity are specified, along with any other environmental criteria applicable to those resources;
- (ii) which requires the generating company or wholesale power marketer to deliver the resources into the PJM control area, or for Orange & Rockland, into the New York Power Pool (NYPP); and
- (iii) which requires that the generating company or wholesale power marketer be able to identify after the fact, and establish an audit trail to verify, the specific generating unit or units used to supply the contracts and to establish that the energy was generated and delivered into the PJM control area, or for Orange & Rockland, into the NYPP, and was not sold more than once.

"Customer" means any person that is connected to any part of the transmission and distribution system within an electric public utility's service territory within New Jersey and that takes electricity directly from the transmission and distribution grid.

"Default values" means the fuel mix and air emissions information set forth by the Board that electricity suppliers shall be allowed to disclose to retail customers in place of the actual fuel mix and air emissions information data, when required to do so pursuant to this Board order. Initially, and until modified by Board order in consultation with the NJDEP, the default value for fuel mix (energy source) shall be the PJM average. The default value for air emissions shall be the PJM average adjusted, as set forth in Appendix C. Electricity suppliers with new electricity products and electricity suppliers newly serving retail customers in New Jersey, who elect not to make an environmental claim for their products, shall use the default values. Also, electricity suppliers making prospective environmental claims for new products and electricity suppliers disclosing actual generation data for existing products with a record of generation may use the default values, but only for that portion of the electricity supplier's energy portfolio that is purchased from the spot market or wholesale market, and only if and for as long as contractual information that can trace the energy to its originating system or unit is not available.

"Electric generating unit" means a unit which generates electricity, if the owner or operator of the unit sells any portion of the electricity generated by the unit (or where the electricity produced by the unit is co-mingled at the facility at which the unit is located with electricity produced by another unit, sells any portion of the co-mingled electricity).

"Electric public utility" means a public utility, as that term is defined in R.S.48:2-13, that transmits and distributes electricity to end users within this State.

"Electricity supplier" or "Electric power supplier" means a person that is duly licensed by the board to offer or provide electric generation service to retail customers in New Jersey, and includes, but is not limited to, load serving entities and electric public utilities that provide electricity to end-users, including basic generation service providers.

"Energy Information Administration" means the Energy Information Administration of the United States Department of Energy.

"Environmental characteristics" means, in respect to electricity that is supplied to a retail customer: (i) the fuel mix used to provide the energy; and (ii) the amount of emissions associated with electric generating resources which produced the electricity.

"Generating company" means a company that owns electric generating resources.

"Fossil fuel" means natural gas, petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material.

"Fuel" means the material used in an electric generating unit to provide the energy to produce electricity.

"Generator" means a device that produces electricity.

"Incumbent utility" means, in New Jersey, the following electric public utilities: Atlantic Electric Company, GPU Energy, Rockland Electric Company and Public Service Electric and Gas Company or, as applicable, their corporate successors.

"Imported power" means electricity sold into the PJM control area from another control area.

"Load-serving entity," or "LSE," means an electric utility providing basic generation service, or an entity or organization that is licensed to serve retail load in New Jersey, otherwise referred to as an electricity supplier.

"Marketer" means a duly licensed electricity supplier that has no owned generation, but that takes title to electricity and/or electric-generating capacity from electric power generators and other wholesale suppliers, and procures transmission and distribution services from T&D facilities, and then resells the electricity to retail customers.

"On-site generation facility" means a generation facility, and equipment and services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way.

"Owned generation" means electric power produced by electric generating resources located within the PJM control area that are owned by an electricity supplier. However, an electricity supplier that is an unregulated affiliate of an incumbent utility shall not be considered an owner of electric generating resources that are owned by such utility.

"Person" means an individual, partnership, corporation, association, trust, limited liability company, governmental entity or other legal entity.

"PJM ISO" means PJM Interconnection L.L.C., the independent system operator which serves a control area that includes portions of Pennsylvania, New Jersey, Maryland, Virginia and all of Delaware and the District of Colombia.

"Program Administrator" means the office, to be established by the Board, to implement and oversee New Jersey's environmental information disclosure program.

"Renewable energy" means electric energy produced from a source of energy that is replenishable and that has minimal associated adverse environmental impacts. For the limited purpose of these interim standards, renewable energy shall include electric energy produced from Class I and Class II renewables as defined in P.L. 1999, C. 23, which includes solar technologies, photovoltaic technologies, wind energy, fuel cells, geothermal technologies, wave or tidal action, hydroelectric facilities, methane gas from landfills, sewage, and agricultural waste digesters, biomass, provided that the biomass is cultivated and harvested in a sustainable manner, and resource recovery facilities, provided that such facility is located where retail competition is permitted and provided that the NJDEP has determined that such facility meets the highest environmental standards and minimizes any impacts to the environment and local communities. In respect to energy produced by resource recovery facilities, all electricity produced by facilities permitted in New Jersey by the NJDEP shall be considered as renewable energy. In addition, energy generated by a facility located outside of New Jersey may also be considered renewable energy if:

- 1. The owner or operator of the source provides documentation to NJDEP that the facility would, taking into consideration the age and type of the unit, meet the applicable requirements of N.J.A.C. 7:27; and
- 2. After reviewing the documentation submitted, NJDEP makes a finding that it is satisfied that the unit does meet the applicable requirements of N.J.A.C. 7:27.

For the limited purposes of these interim standards, in respect to hydroelectric power, only electricity produced by hydroelectric facilities, located where retail competition is permitted, and with a capacity of 30 megawatts or less shall qualify as renewable energy until the NJDEP has issued more specific criteria that hydroelectric facilities must meet to ensure that such facility meets the highest environmental standards.

"Residual control area average" means the weighted average fuel mix and emissions associated with the electricity supplied to customers in the PJM control area, as determined by the Program Administrator. In determining this average the Program Administrator shall take into consideration both the electricity generated in the PJM control area and electricity imported into the control area; and shall exclude the following: (i) electricity exported from the PJM control area, (ii) both electricity produced by owned generation and electricity purchased by an electricity supplier under a bilateral contract, provided that the electricity is specifically ascribed to the electricity supplier, pursuant to the disclosure rules set forth herein, as electricity used to meet the supplier's retail load, and (iii) electricity purchased by a supplier through a conversion transaction.

"Retail customer" means any person that is connected to any part of the transmission and distribution system within an electric public utility's service territory within this State. This term includes

customers of a private aggregator or governmental aggregator, but does not include wholesale customers that take electricity directly from the transmission and distribution grid.

"Retail load" means the demand of retail customers for electricity.

"Schedule" means the process by which a generator, electricity supplier, or wholesale power marketer informs the PJM ISO or the NYPP ISO (in the case of Rockland Electric), or the PJM ISO or NYPP ISO, itself determines, that a specific generating unit or units will operate for a specific period of time.

"Spot market" means the regional market administered by the PJM ISO in which electricity is scheduled by the PJM ISO for purchase and sale on the basis of a bid price. This term does not include the scheduling of bilateral contracts for the purchase and sale of hourly energy based on bid prices submitted by market participants other than the PJM ISO.

"System contract" means a bilateral contract between an electricity supplier and a generating company, or between an electricity supplier and a wholesale power marketer, pursuant to which the supplier purchases a share of a generating company's system power which is specifically identified in the contract and is backed by the generating company's assets, excluding power that is sold pursuant to unit contracts or contracts for specified resources.

"System power" means all of the electric power generated by all units which are owned by a single generating company and located within the control area from which the power is being sold, excluding power that is sold pursuant to unit contracts or contracts for specified resources.

"Transmission and distribution system" means, with respect to an electric public utility, any facility or equipment that is used for the transmission, distribution or delivery of electricity to the customers of the electric public utility including, but not limited to, the land, structures, meters, lines, switches and all other appurtenances thereof and thereto, owned or controlled by the electric public utility within New Jersey.

"Unit contract" means a contract between an electricity supplier and a generating company, or between an electricity supplier and a wholesale power marketer:

- (i) in which the generating unit or units are specified and receipt of electricity is tied to the performance of such unit or units;
- (ii) for electricity for which the supplier has scheduled transmission into the PJM control area, or in Rockland & Orange's case, into the NYPP control area; and
- (iii) with respect to which the control area operator in the generator's control area is able to verify the electricity being supplied was generated by the specified unit or units.

For the purposes of environmental disclosure, any contracts entered into under federal PURPA or other similar state authority between an electric public utility serving retail load in New Jersey and an independent power producer shall be considered a unit contract.

"Wholesale electricity" means power sales or purchases that do not meet the definition of unit or system contracts, or contracts for specified resources.

B. The following are measurements, abbreviations, and acronyms used in this rule:

Board or BPU New Jersey Board of Public Utilities

Btu British thermal unit CO₂ carbon dioxide

DER Discrete Emission Reduction (credits)
EIA Energy Information Administration

hr hour

ISO Independent System Operator

kWh kilowatt hour

lb pound

LSE load-serving entity

mmBtu million Btu
MWh megawatt hour

NJDEP New Jersey Department of Environmental Protection

NO_x nitrogen oxides (or oxides of nitrogen)

NUG Non-utility generator NYPP New York Power Pool

OMET open market emission trading

PJM Pennsylvania/New Jersey/Maryland (control area)

SO₂ sulfur dioxide

T&D transmission and distribution

ton 2000 pounds

USEPA US Environmental Protection Agency

SECTION 4. REQUIREMENTS OF THE INTERIM RULE

Pursuant to the mandates embodied in P.L. 1999, c.23, the interim rules for environmental disclosure to retail customers require every electric service supplier to provide the following:

Standardized Environmental Information

Environmental disclosure information distributed to retail customers shall contain the following information: (i) fuel mix, expressed in percent (%) of the electricity provided that has been produced from each fuel; (ii) air emissions, expressed in pounds of emissions per megawatt-hour of electricity supplied (lbs/MWh); and (iii) the electricity supplier's support of energy efficiency, expressed in kilowatt-hours (kWh) saved per year.

Fuel Mix (Energy Source) Information

Electricity suppliers will disclose to retail customers the fuels in the fuel mix associated with the generation of the electricity product being provided or offered using the following energy resource categories: coal, gas, hydroelectric (large), nuclear, oil, and renewable energy, including captured

methane gas, fuel cells, geothermal, hydroelectric (small), solar, solid waste, wind and wood or other biomass. (See Appendix B.)

An electricity supplier making a prospective offer for a "renewable energy" product may not be able to predict the exact percentages of each renewable resource it will provide. In this case, the electricity supplier may list a percentage of its fuel mix as being from "renewable energy," without providing specific percentages for wind, solar, hydroelectric or other generating resources. In disclosure for existing products, based on an historical record, specific percentages shall be given for each renewable resource.

If an electric power supplier or basic generator service provider arranges with a customer for the installation and use of fuel cells, geothermal technology, solar technology, or other renewable energy technologies as listed in Section 3 to generate electricity, then the supplier may claim the equivalent amount of electricity generated by the customer-generator as part of its renewable energy fuel mix. This shall not include renewable energy technologies funded through the Societal Benefits Charge.

Air Emissions Information

Each electricity supplier will report for each electricity product it sells in New Jersey, the emissions of sulfur dioxide (SO_2), oxides of nitrogen (SO_2) and carbon dioxide (SO_2), based on a weighted average (expressed in lbs/MWh). Other air pollutants such as mercury or fine particles may be required later by decision of the Board, after consultation with the New Jersey Department of Environmental Protection (SO_2). The supplier will present the product's emissions data in the uniform label format, relative to a New Jersey benchmark. Initially, and until modified by Board order in consultation with the NJDEP, the specific benchmarks shall be based on 1996 emissions data from the U.S. Department of Energy's Energy Information Administration publication EIA-0629 "State Electricity Profiles," and shall approximate the average of all electric generating units in New Jersey for SO_2 (i.e., 2.5 pounds per megawatt hour), SO_2 (i.e., 1,213 pounds per megawatt hour) and SO_2 (i.e., 3.0 pounds per megawatt hour). (See Appendix C) In the case of SO_2 (i.e. average derived from the 1996 Department of Energy data has been adjusted to take into account the new NJDEP ozone season standards for SO_2 (i.e., average derived from the 1996 Department of Energy data has been adjusted to take into account the new NJDEP ozone season standards for SO_2 (i.e., average derived from the 1996 Department of Energy data has been adjusted to take into account the new NJDEP ozone season standards for SO_2 (i.e., average derived from the 1996 Department of Energy data has been adjusted to take into account the new NJDEP ozone season standards for SO_2 (i.e., average derived from the 1996 Department of Energy data has been adjusted to take into account the new NJDEP ozone season standards for SO_2 (i.e., average derived from the NJDEP).

Energy Efficiency Information

Each electricity supplier serving retail customers in New Jersey shall disclose to its retail customers, in accordance with the provisions set forth herein, the amount of electricity that has been saved through the supplier's investments in energy efficiency. This shall not include electricity saved under energy efficiency programs funded through the Societal Benefits Charge. The supplier shall report the amount of electricity savings, expressed in kilowatt-hours, represented by the retirement of emissions credits based on the implementation of electrical energy efficiency measures. Such credits may be:

- (i) Discrete emission reduction (DER) credits, generated pursuant to New Jersey's open market emission trading (OMET) program (N.J.A.C. 7:27-30); or
- (ii) Allowances allocated from the Incentive Reserve under New Jersey's NO_x budget program. Documentation of the kWhs saved is a component of the quantification required for the generation or claiming of these credits; therefore, the value of the credits in kWhs can readily be determined by consulting this documentation.

All electricity suppliers will be required to file each disclosure label with the Board or Program Administrator.

SECTION 5. DETERMINING THE FUEL AND EMISSIONS CHARACTERISTICS

1. Disclosure for Existing Products

For existing electricity products that have been offered for some period of time and are associated with a record of generation, the fuel mix and emissions information associated with such electricity products and disclosed on labels shall be based on "historical" data that reflect the generation of the power provided by the supplier in the preceding year. Initially in Phase I, incumbent utilities with owned generation shall be the only suppliers of existing products. These existing products include electricity the utility provides pursuant to its basic generation service obligations. During Phase I-A, until a Program Administrator is established and is technically and administratively able to assist energy suppliers, each electricity supplier of existing products will develop for itself the environmental information to be set forth in its disclosure label(s) for each product offered. These disclosure labels shall reflect to the extent feasible the characteristics of the emissions and fuel mix information of the actual electric generating units or systems used by an electricity supplier to meet its retail load in the most recent 12-month period, or an approximation of such units or systems, developed pursuant to the methodologies set forth in this section and Section 6.

Notwithstanding the above, where landfill gas or sewage or agricultural waste digester gas is co-fired in a fossil-fuel plant, a supplier may present the fuel mix and emissions characteristics associated with the landfill, sewage or agricultural waste digester gas alone, if the supplier has purchased the electricity generated from the landfill, sewage or agricultural waste digester gas separately and the fossil-fuel generator has agreed not to reflect the fuel mix and emissions characteristics of the landfill, sewage or agricultural waste digester gas in disclosure regarding the fossil-fuel plant.

2. Disclosure for New Market Entrants and New Products

For new products and for new market entrants in New Jersey, electricity suppliers will be permitted to disclose environmental information on a prospective basis for a period up to one year (four quarters). (See Section 6 for greater detail.) Alternatively, for a period of at least 18 months, through December 2000, these suppliers may use the default values for fuel mix and emissions information set forth by the Board. This choice shall be permitted for a limited period of time in recognition that suppliers of new electricity products, including suppliers newly serving retail customers in New Jersey, will not have an historical record on which to base disclosure.

If the new supplier, however, is making an environmental claim for its product, then it may not use the default values, but rather shall prospectively disclose fuel mix and emissions of the electricity it intends to provide for a period of at least 12 months. For products with environmental claims, the use of default values shall only be allowed for energy that is purchased from the spot market or wholesale electricity purchased by the supplier only if and as long as contractual information that can trace the energy to its originating system or unit is not available. (See subsection 2(a) Section 5.)

As of the beginning of the next quarter, once the 12-month or 18-month period (as applicable) has ended, the supplier will commence providing a label based on historical information, as described in the preceding paragraph. After 18 months (beginning January 2001), products that were newly introduced when retail competition commenced will become reclassified for the purpose of environmental disclosure as existing products, if the product's supplier elected to use default values on the product's disclosure label. After twelve months (four quarters), "new" products whose supplier used environmental claims on the initial disclosure label will become existing products as well.

A. Disclosure Based on Prospective Environmental Claims

New market entrants and electricity suppliers introducing new products may base their disclosure labels on prospective environmental claims for a period of 12 months. After the 12 months, the supplier will revise its disclosure labels to reflect the environmental information associated with the actual electric generating units or systems that generated the power it supplied during those first 12 months, in accordance with the rules for disclosure based on historical information described herein. Also following the 12 months, for the electricity it supplied during the 12 month period, the electric supplier will document that it has met the fuel mix and emissions specifications set forth in its prospective claims using one or more of the following, as applicable:

- (i) the emissions and fuel mix characteristics of electricity generated by owned units or systems;
- (ii) the emissions and fuel mix characteristics of electricity that the electricity supplier purchased through unit or system contracts or contracts for specified resources that the electricity supplier entered into (i) for electricity generated within PJM or (ii) for imported power, where the electricity supplier has filed with the Board or Program Administration documentation which shows that the unit(s), specified resource(s) or system operated, that the electricity was transmitted to PJM and that the generating company has not sold the electricity to any other party; and
- (iii) The default values for the fuel mix and emissions information set forth herein by the Board, until such time as the Board or Program Administrator makes available more specific or refined default values, including a spot market average or other alternative default environmental characteristics for energy purchased from the market on a spot basis.

As with disclosure based on historical data, electricity suppliers will determine the environmental characteristics of owned generation and electric power purchased through bilateral contracts by

reference to information supplied by the generator or to publicly available information and will ascribe the default environmental characteristics set forth to all other resources.

In determining whether a supplier has succeeded in documenting that the electricity provided has met the environmental claim for the new product, electricity suppliers will be permitted a margin of error. In respect to a claim for fuel mix, the claim will be considered to be met if the actual percentage of each given fuel type does not differ from the amount claimed by an amount equal to the lesser of 20% of the percentage indicated for any given fuel type or 5% of the total product. Thus, if an electricity supplier indicated that its product would include 10% wind power, it would be permitted to include between 8% and 12% wind power. A product advertised as "90% hydropower" could range between 85% and 95%. In no case would the electricity supplier be allowed to serve its retail customers with power generated from fuels other than those claimed on the label. No margin of error for fuel mix should be permitted for products comprised of 100% of a specified resource. In respect to emissions, an emissions claim will not be considered to be met if the emissions exceed the claim by more than 5%. Providing more than the specified percentage of resources defined herein as "renewable energy" shall not constitute noncompliance with an environmental claim.

B. Default Disclosure Labels for New Market Entrants and New Products

A new market entrant that does not choose to base disclosure labels on prospective environmental claims shall disclose the default claim set forth by the Board for the emissions and fuel mix information for all products it sells in New Jersey for a period of 18 months, after which time it will update its disclosure labels to reflect actual electric generating units or systems that generated the power it supplied during those first 18 months, in accordance with the rules for disclosure based on historical information described herein. Initially, and until modified by Board order in consultation with the NJDEP, the default value for fuel mix (energy source) shall be the PJM average. The default value for air emissions shall be the adjusted PJM average set forth in Appendix C. The default values can be used by electricity suppliers until January 2001 for new electricity products or by electricity suppliers newly serving retail customers in New Jersey, that do not have an historical record on which to base disclosure. Electricity suppliers making prospective environmental claims or electricity suppliers with existing products with a record of generation shall use the default values set forth herein only for that portion of the electricity supplier's energy portfolio that is purchased from the spot market or wholesale market, and only if and for as long as contractual information that can trace the energy to its originating system or unit is not available.

SECTION 6. Methodology for Developing a Disclosure Label

During Phase I, each electricity supplier shall disclose the emissions and fuel mix associated with the electricity used to meet its retail load (except for new products) using information that is readily available to the supplier and verifiable by the Board or Program Administrator. The electricity will fall in one of the following categories: (i) electricity generated by units owned by the supplier; (ii) electricity purchased by the supplier through bilateral unit contracts (including imported power); (iii) electricity purchased by the supplier through bilateral system contracts or contracts for specified resources (including imported power); (iv) wholesale electricity purchased by the supplier; and (v) electricity purchased by the supplier from the spot market administered by PJM ISO.

1. Known Environmental Characteristics

With respect to electricity where its point of generation is known by the supplier (i.e., owned generation or electricity generated or controlled by another company with which the supplier has a bilateral contract; and unit or system power scheduled with the PJM ISO for sale to the supplier), the supplier shall use the actual emission rates and fuel characteristics for the most recent year for which they are available pertaining to the specific electric generating units in determining the fuel mix and emissions values to be disclosed on its label. (See subsection 3 of Section 6.) The supplier can determine these characteristics utilizing information that is reported to, and made available by, the US Environmental Protection Agency (USEPA) and Energy Information Administration (EIA), or information supplied by the generator that is made available to and is verifiable by the Board or Program Administrator. Each electricity supplier that is relying on publicly available information to determine the actual emission rates and fuel characteristics associated with electricity supplied will use 1996 data, the most recent year for which data is available, to develop its disclosure labels until the Board or the Program Administrator provides notice that more recent data is available. The source of publicly available information shall be the USEPA's Emissions and Generation Resource Integrated Database (EGRID) which can be accessed at: www.epa.gov/acidrain/egrid/egrid.htm

These 1996 emission rates and fuel characteristics shall be applied to the actual generating units or systems used by the electricity supplier to meet its retail load for the 12-month period being reported on the label. If the electricity supplier has more recent data than the 1996 emission rates and fuel characteristics, and the more recent information can be verified by the Board or Program Administrator, these data may be used instead of the 1996 EGRID data by the electricity power supplier or generation service provider.

In the case where information regarding emissions associated with NUG contracts is not available from the generator, the electricity supplier may calculate the emissions characteristics for the contract using the generation permit levels of the NUG, as allowed by the NJDEP, and a conservative estimated emission heat rate factor. (See Appendix D.)

2. Unknown Environmental Characteristics

With respect to electricity where its point of generation can not be readily known by the supplier (i.e., electricity purchased on the spot market or from a wholesale supplier), or if the electricity supplier of a new product chooses to disclose default information during the initial 18-month period of Phase I-A, default values set forth in Appendix C shall be used to determine the environmental information to be disclosed on the label. During Phase I, the default values for fuel mix shall initially be the average characteristics of the PJM control area and the default values for air emissions shall initially be the adjusted PJM average set forth in Appendix C, and used as explained herein in Section 5(2)B, until such time as the Board and/or the Program Administrator is able to provide more accurate or complete information.

3. Treatment of Electric Resource Categories

In developing disclosure labels, each category of electric generating resources shall be treated as follows:

Owned generation. An electricity supplier that owns electric generating units located in the PJM control area shall disclose the fuel mix and emissions associated with all electricity generated from those units, unless the electricity was sold in the wholesale market through a unit or system contract, or contract for specified resources. If, in the previous calendar year, an electricity supplier's owned generation exceeded its retail load, the electricity supplier shall ascribe the average environmental characteristics of its owned electric generating units (minus the electricity sold through unit or system contracts or contracts for specified resources to the wholesale market) to its retail sales. If, in the previous calendar year, the electricity supplier's owned generation was less than its retail load, the electricity supplier shall ascribe the average environmental characteristics of its owned generation (again subtracting the electricity sold through unit or system contracts or contracts for specified resources to the wholesale market) to the portion of its retail load that is equal to the electricity it generated during that period. The remaining retail load shall be ascribed the environmental characteristics of unit contracts, system contracts or the default values set forth herein, as applicable, until the Board or a Program Administrator makes available alternative default emissions and fuel mix information.

Unit contracts. An electricity supplier that purchases electric power through a unit contract shall ascribe the fuel mix and emissions associated with the specified unit or units to all electric power purchased through that contract. With respect to a unit contract for imported power, the electricity supplier may characterize this power with the electric generating unit's emissions and fuel mix information after filing the following with the Board or the Program Administrator: (i) documentation that the unit or units generated the amount of electricity claimed during the specified period; (ii) documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Rockland & Orange, into the NYPP control area; and (iii) certification from the generating company that it has not sold the electricity claimed by the electricity supplier to any party other than that electricity supplier. The certification documentation shall be included in the annual certification completed by an independent entity as explained in Section 9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units owned by the company from which the electricity was purchased.

Contracts for specified resources. An electricity supplier that purchases electric power through a contract for specified resources shall ascribe the fuel mix and emissions associated with the resources actually used to supply the contract. With respect to imported power, the electricity supplier may characterize this power with the electric generating unit's emissions and fuel mix information after filing the following with the Board or the Program Administrator: (i) documentation that the unit or units generated the amount of electricity claimed during the specified period; (ii) documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Orange & Rockland, into the NYPP control area; and (iii) certification from the generating company or wholesaler supplying the electricity supplier that the electricity claimed by the electricity supplier has not been sold to any party other than that electricity supplier. The certification documentation shall be included in the annual certification completed by an independent entity as explained in Section 9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units owned by the company in the control area from which the electricity was purchased.

System contracts. Electricity suppliers that purchase electric power through bilateral system contracts shall characterize this power with the generating company's average fuel mix and emissions (less any electricity sold through unit contracts) if, in the previous calendar year, the generating company's owned generation exceeded its retail load. Such purchases shall be considered to be undifferentiated power obtained from a wholesale supplier and characterized by the default fuel mix and emissions set by the Board, if the seller's retail load exceeded its owned generation in the previous calendar year.

With respect to a system contract for imported power, an electricity supplier may characterize this power with the generating company's average emissions and fuel mix information after filing the following with the Board or the Program Administrator: (i) documentation that the specified system generated the amount of electricity claimed during the specified period; (ii) documentation that the electricity was scheduled for transmission into the PJM control area, or in the case of Orange & Rockland, into the NYPP control area; and (iii) certification from the generating company that it has not sold the electricity claimed by the electricity supplier to any party other than that electricity supplier. The certification documentation shall be included in the annual certification completed by an independent entity as explained in Section 9. In the event that the electricity supplier does not file such information, the supplier shall characterize the electricity with the average environmental characteristics of the generating units located in the control area from which the electricity was purchased.

Spot market purchases and wholesale electricity contracts. Electricity suppliers shall ascribe the default fuel mix and emissions set forth herein to all electricity purchased from the spot market or purchased through wholesale electricity contracts until such time as the Board or Program Administrator develops alternative default emissions and fuel mix information to ascribe to such purchases. If a supplier can confirm the environmental characteristics of the energy from an undifferentiated wholesale electricity contract, he may report this data to the Program Administrator.

4. Annual Averaging

Except for new products for which such information is not available, suppliers shall base disclosure for a product on a weighted average of the characteristics of the various electric generating units contracted to produce the electricity over the period of a single calendar year. The average emission rate (pounds per MWh) of a generating unit can, for most units, be determined by reference to the most recent data reported to, and made available to the public by, the USEPA and the EIA.

5. Product Differentiation

Each electricity supplier shall be permitted to differentiate its electricity supply portfolio into discrete retail products. Such differentiation is subject to the following restrictions:

a. An electricity supplier's demonstration that a new electricity product supplied to New Jersey retail customers during a specific period met the environmental claims made for that product shall be based on owned generation or on one or more bilateral

contracts. Any source of supply, where the generating unit or units are not so documented, shall be ascribed the default values for fuel mix or emissions characteristics set forth by the Board herein, until such time as the Board or Program Administrator develops alternative default emissions and fuel mix information.

- b. The electricity supplier shall demonstrate its sources of electric supply, either from owned resources or through acquisitions in the wholesale market. The supplier shall be required to show that over a course of a given year its sources of supply were sufficient to meet its retail load for each of its products and for any wholesale sales it has made. The supplier shall also be able to demonstrate that no electricity has been double counted.
- c. The weighted average of the fuel mix and emissions disclosed for all products sold by an electricity supplier (both products for which an environmental claim is made and product(s) based on the remainder of the supplier's portfolio) must correspond to the average fuel mix and emissions of the supplier's wholesale portfolio, minus the supplier's wholesale sales or, to the default fuel mix and emissions information provided by the Board or the Program Administrator.

6. Quantification of Electricity Saved Through Efficiency Investments

All electricity suppliers shall be required to disclose in the standard format authorized by the Board the amount of electricity saved as a result of their investment in energy efficiency measures in New Jersey, including an indication that no electricity has been saved if the supplier has not made any such investments. Electricity savings that result from energy efficiency programs subsidized by the Statemandated Societal Benefits Charge may not be included in the electricity savings disclosed to retail customers. In order to be eligible to claim the savings, electricity suppliers shall document electricity savings resulting from efficiency measures by generating and retiring discrete emission reduction (DER) credits pursuant to New Jersey's Open Market Emission Trading (OMET) program or by retiring NO_x allowances allocated under the State's xNO budget program on the basis of implementation of energy efficiency measures. (See subsection 7 of Section 6.) Electricity suppliers may also claim credit for energy efficiency by purchasing and retiring DER credits or allowances created through energy efficiency measures implemented by another company. Emission credits and allowances shall be translated into electricity savings based on the MWH savings reported in the documentation for the generation of the emission credits or for the claim of the allowances.

SECTION 7. Disclosure Information Updating and Reporting Requirements

Each electricity supplier (except for suppliers of new products) will be required to update and distribute the environmental information on its label(s) semi-annually. The disclosure shall be based on data reflecting the product sold during the most recent 12-month period. Suppliers relying on historical information for disclosure shall be required to provide updated labels on April 1 and October 1. This information shall be based on four quarters' information, but recognizing that some period is needed for information gathering and processing, a three month lag will be allowed between the date that disclosure of an updated label is required and the last day of the period on which the

label is based. For example, an updated label issued on April 1, 2000, shall be based on data reflecting the generation of power provided from January 1 through December 31, 1999. An updated label issued on October 1, 2000 shall be based on data reflecting the generation of power from July 1, 1999 to June 30, 2000. An updated label issued on April 1, 2001, shall be based on data reflecting the generation of power provided between January 1, 2000, and December 31, 2001. (See Appendix E.)

For the limited purposes of these interim standards, suppliers of basic generation service shall develop and distribute to their basic generation customers, no later than September 15, 1999, environmental information as defined in Sections 5 and 6 and illustrated in Exhibit A. Thereafter, suppliers of basic generation service shall provide environmental information to basic generation customers according to the schedule as set forth in the preceding paragraph and in Appendix E.

Each electricity supplier of a new product for which an environmental claim is made shall be required to update its label after a 12-month period for which power was supplied to the customer, as set forth in Exhibit E. However, suppliers of new products shall distribute the label to their customers semi-annually, as set forth in Exhibit E, whether making an environmental claim for the product or using the default label.

A supplier that does not differentiate the electricity it supplies into distinct products on the basis of environmental characteristics shall disclose the same information on fuel mix, emissions and support of energy efficiency for all the electricity it sells. An electricity supplier that does create distinct products on the basis of environmental characteristics shall follow the rules for product differentiation set forth in subsection 5 of Section 6 to develop different labels for different products, and shall document that the weighted average of all of its products is consistent with the supplier's overall portfolio of electricity used to meet its total retail load.

The electricity supplier shall develop the environmental information for the existing product's disclosure label by determining the fuel mix and emissions associated with the electric generating resources it relied on in the most recent four quarters to meet the retail load resulting from sales of that product. The supplier will base its calculation of this environmental information upon: (1) actual information associated with generation from which the fuel use and emissions characteristics are readily known by the supplier; and (2) default fuel mix and emission characteristics associated with generation from which fuel use and emissions characteristics are not readily known by the supplier. For existing products, the use of default values set forth herein shall only be allowed for energy that is purchased from the spot market or wholesale electricity purchases only if and as long as contractual information that can trace the energy to its originating system or unit is not available.

SECTION 8. Environmental Disclosure Distribution

1. Disclosure Labels

a. Electricity suppliers will be required to disclose environmental information, in the uniform label format approved by the Board, to all prospective retail customers prior to signing them as customers. This does not apply in the case of a customer being returned to basic generation service provided by the local distribution company.

Customers returned to basic generation service shall receive the next scheduled semiannual report, as well as all subsequent reports. In addition, electricity suppliers shall include disclosure labels in: (i) semi-annual mailings to all retail customers; (ii) all product-specific direct mail marketing materials or if a supplier offers only one product, in all direct mail marketing materials; (iii) all marketing materials that include a solicitation seeking to have the recipient sign up as a retail customer or that include an opportunity to enter into a contract, including those that are accessible to retail customers via computer; and (iv) any statement of terms and conditions sent to retail customers following sign-up.

- b. Electricity suppliers shall be required to disclose that environmental information is available to the customer if electricity suppliers advertise in print advertisements such as newspapers published in New Jersey or newspapers that permit the purchase of advertising space for distribution in New Jersey in which a specific product is advertised. For specified products advertised, electricity suppliers shall indicate in all such materials that environmental information is available upon request, which, at a minimum, includes the environmental information provided in the standard label attached hereto as Exhibits A, B, or C, and shall provide a toll-free telephone number through which retail customers can access this information, in addition to any mailing address or Internet website address.
- c. In other marketing efforts (e.g. broadcast, telemarketing) in which a specific product is advertised or offered, electricity suppliers shall inform retail customers that environmental information on the advertised products is available which, at a minimum, includes the environmental information provided in the standard label attached hereto as Exhibits A, B or C, and shall provide a toll-free telephone number. If the electric power supplier or generation service provider maintains an Internet website, then the Internet address shall be provided.

2. Annual Reports

In April of each year, all New Jersey electric suppliers shall submit to the Board or the Program Administrator an annual report for the preceding calendar year (January through December) in accordance with guidelines established by the Board or the Program Administrator. In its report, each electricity supplier shall, on an annual basis, disclose all of the electricity products it has offered for sale in New Jersey, including the weighted average emissions performance (expressed in lbs/MWh) for NO_x, SO₂, and CO₂ and the weighted average fuel mix of all products sold to retail customers in New Jersey. An electricity supplier's annual report shall also include information, including the weighted average emissions performance (expressed in lbs/MWh) for NO_x, SO₂, and CO₂ and the weighted average fuel mix of the generating resources owned by all affiliated companies in the Eastern Interconnection. In addition, each electricity supplier shall report on other matters as required by the Board or the Program Administrator, such as whether it has succeeded in meeting any prospective claims it has made, and whether it has been found to be in violation of any requirements related to disclosure in the previous year.

An electricity supplier shall also inform all its retail customers annually that such a report is available upon request and shall provide a toll-free telephone number through which retail customers can obtain this information. An electricity supplier shall also provide to all its retail customers the Internet site address maintained by the Board or Program Administrator as set forth in Section 8(3) to allow customer Internet access to its annual report.

3. State-run Disclosure Clearinghouse

The Program Administrator shall maintain an Internet site with information relevant to environmental disclosure. The Administrator shall see that the disclosure labels of all products supplied in New Jersey by all New Jersey registered electricity suppliers are posted on the site. The Internet site shall include other related information such as each supplier's annual report and whether each company has met its claims, and whether it has been fined or penalized by any State agency in relation to State disclosure requirements.

SECTION 9. CERTIFICATION BY AN INDEPENDENT ENTITY

Prior to distributing disclosure information to customers and annually thereafter, each supplier of an existing product shall obtain a certified verification of the environmental information to be disclosed from a certified public accountant (CPA) that is independent of such electricity supplier. Any electricity supplier of a new electricity product who makes a specific environmental claim on the product's disclosure label, including a claim of support for energy efficiency, shall, following the 12-month or longer period during which the claim is made, demonstrate that the claim was met within the allowable limits, and obtain a certified verification from an independent CPA that the demonstration is complete, accurate and true. Electricity suppliers of new electricity products who rely on the allowed default values for the initial 18-month period are not required to obtain verification or audit of the default emissions and fuel mix information.

The CPA shall certify that the environmental information disclosed on the label has been properly determined, including that the supplier's wholesale portfolio information is based on an accurate calculation of the emissions of owned generation units and of units and/or systems for which the supplier has bilateral contracts; and that proper default values have been used for electricity obtained from wholesale electricity purchases and purchases through the spot market.

Both for existing products and for verification that the product environmental claims have been met, the electricity supplier shall be required to file the CPA's certified verification with the Board or Program Administrator. Power purchase contracts do not need to be provided to the Board as supporting documentation, unless specifically requested by the Board or Program Administrator.

SECTION 10. VERIFICATION AND PENALTIES

1. Verification

Until a Program Administrator is able to execute its function, the Board will be responsible for periodically auditing compliance with environmental disclosure requirements, including the proper development and distribution of disclosure labels. When the Program Administrator is in place, it

shall provide reports of such audits to the Board, the NJDEP, the Office of the Ratepayer Advocate, and the Division of Consumer Affairs, for their review. The Board shall set up a dispute resolution process through which electricity suppliers can obtain a review of the Program Administrator's calculations and findings.

Electricity suppliers that have made prospective claims shall provide to the Board or Program Administrator in their semiannual report a demonstration either that appropriate progress has been made toward meeting the claim or, after the end of the year, that the electricity provided met the environmental claims made. Following the 12-month period for which the claim was made, electricity suppliers shall have their demonstrations reviewed, verified, and certified by an independent CPA, prior to their submittals to the Board or Program Administrator. Actions taken by the Program Administrator or the Board to address a supplier's failure to meet environmental claims shall not be confidential.

With respect to prospective claims, while electricity suppliers shall be allowed a full calendar year to meet an environmental claim, they shall report on their progress to the Program Administrator quarterly. To do this, electricity suppliers shall "close the books" on each product after each three-month period and calculate the extent to which it has met the environmental claims for the product. This assessment shall be done with a simple average. For example, to demonstrate progress toward meeting a fuel mix claim, an electricity supplier that has provided electricity in the first two quarters based on purchases of natural gas to meet 20% and 30%, respectively, of its retail load for a particular product would average these percentages to show that it is on target to create an annual product consisting of 25% natural gas.

If the Program Administrator determines that any supplier has failed to meet its obligations, including its obligation to meet its environmental claims over the calendar year, the Program Administrator shall refer the matter to the Board for further action.

2. Enforcement and Penalties

The Program Administrator shall refer violations of disclosure requirements to the Board for their consideration and possible proceedings before the Board, the Office of Administrative Law, the Division of Consumer Affairs, or other venue. Where applicable and appropriate, the Board shall consult the Attorney General, the NJDEP, the Division of Consumer Affairs, and the Office of Ratepayer Advocate, in respect to these referrals.

- (A) Any party determined by the Board, after notice and hearing, to have violated any provision of these standards relating to environmental disclosure shall be subject to any one or more of the following penalties consistent with provisions of P.L.1999, C.23:
 - (1) suspension or revocation of the electric power supplier's license;
 - (2) financial penalties as permitted by law; and
 - (3) prohibition on accepting new customers.

- (B) In determining the appropriate sanction, the Board shall consider the following criteria and any other factors deemed appropriate and material to the supplier's failure to comply:
 - (1) The good faith efforts, if any, of the entity charged in attempting to achieve compliance;
 - (2) The gravity of the violation or failure to comply with the requirements defined herein;
 - (3) The number of past violations by the entity charged regarding this standard and other standards adopted by the Board; and
 - (4) The appropriateness of the sanction or fine to the size of the company charged.

EXHIBITS and APPENDICES

Exhibit A Example Label Based on Actual Generation Data

Exhibit B Example Label Based on Environmental Claim

Exhibit C Example Label for New Product Based on Default Information

Appendix A Role of the Parties

Appendix B Definitions of Fuel Types

Appendix C Benchmark and Default Values

Appendix D New Jersey Non-Utility Generator Environmental Disclosure Default

Methodology

Appendix E Label Update and Distribution Timing Requirements

Exhibit A: Label Based on Actual Generation Data

Environmental Information for the Electricity Product

Electricity supplied from January through December, 1998

(Insert Product Identification and company name)

Electricity can be generated in a number of ways with different impacts on the environment. The standardized environmental information shown below allows you to compare this electricity product with electricity products offered by other electric suppliers.

Energy Source

(Insert company name) relied on these energy resources to provide the electricity product. Coal 35_% Gas 10_% Hydroelectric (large) _3_% Nuclear _46_% Oil _5_% Renewable energy Captured methane gas 0_% Fuel cells _0_% Geothermal 0 % Hydroelectric (small) 0 % Solar 0 % Solid waste 0 % Wind _0_% Wood or other biomass _1_%

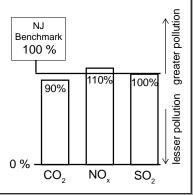
Renewable energy sources subtotal__%

TOTAL 100%

Air Emissions

The amount of air pollution associated with the generation of the electricity product is shown. This amount is compared to a New Jersey benchmark. The benchmark approximates the average emission rate for all electricity generation in New Jersey.

 ${
m CO}_2$ is a "greenhouse gas" which may contribute to global climate change. ${
m SO}_2$ and ${
m NO}_{\rm x}$ react to form acids found in acid rain. ${
m NO}_{\rm x}$ also reacts to form ground level ozone, an unhealthful component of "smog."



Energy Conservation

The electricity generation and associated air emissions were avoided through (insert company name)

investments in conservation measures. Energy conservation measures means less electricity needs to be generated and pollution is avoided. Avoided generation Avoided Air Emissions

__ KWh ___ tons CO₂
___ tons NO_x
__ tons SO₂

See your Terms of Service for further information regarding this label. You may also call XYZ Energy Supplier for additional information or a copy of the Terms of Service at (800) 555-5555.

Exhibit B: Label for New Product Based on an Environmental Claim

Environmental Information for the Electricity Product (Insert Product Identification)

(This is a new energy product. The data shown below are prospective values based on the guarantees for electricity to be supplied from January through December, 2000.)

(Insert Product Identification and company name)

Electricity can be generated in a number of ways with different impacts on the environment. The standardized environmental information shown below allows you to compare this electricity product with electricity products offered by other electric suppliers.

Energy Source

(Insert company name) guarantees that these energy resources will be used to generate this new electricity product.

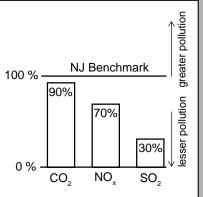
*38% of the renewable energy sources used to produce the product will be a combination of (list the renewable sources that will be used.)

Coal Gas Hydroelectric (large) Nuclear Oil Renewable energy Captured methane gas* Fuel cells* Geothermal* Hydroelectric (small)* Solar* Solid waste* Wind*	_0_% _40_% _20_% _0_% _2_% _18_% _0_% _15_% _3_% _0_% _2_%
Wood or other biomass*	_0_%
TOTAL	100%

Air Emissions

(Insert company name) guarantees that the amount of air pollution associated with the generation of the electricity product will not exceed the amount shown. This amount is compared to the New Jersey benchmark. The benchmark approximates the average emission rate for all electricity generation in New Jersey.

 ${
m CO}_2$ is a "greenhouse gas" which may contribute to global climate change. ${
m SO}_2$ and ${
m NO}_{\rm x}$ react to form acids found in acid rain. ${
m NO}_{\rm x}$ also reacts to form ground level ozone, an unhealthful component of "smog."



Energy Conservation

(Insert company name) will invest in energy conservation measures sufficient to avoid the electricity generation shown and the associated air emissions. Energy conservation measures means less electricity needs to be generated and pollution is avoided.

Avoided generation Avoided Air Emissions

__ KWh ___ tons CO₂
___ tons NO_x
__ tons SO₂

See your Terms of Service for further information regarding this label. You may also call XYZ Energy Supplier for additional information or a copy of the Terms of Service at (800) 555-5555.

Exhibit C: Label for New Product Based on Default Information

Environmental Information for the Electricity Product (Insert Product Identification)

(This is a new energy product. (Insert company name) has made no guarantee as to the environmental characteristics of the energy to be supplied from January through December, 2000. The data shown below are default values, and do not necessarily reflect the energy that (insert company name) will supply.)

(Insert Product Identification and company name)

Electricity can be generated in a number of ways with different impacts on the environment. The standardized environmental information shown below allows you to compare this electricity product with electricity products offered by other electric suppliers.

Energy Source

Default values are shown which represent 1996 regional averages.

Coal	_49_%
Gas	_7_%
Hydroelectric (large)	_2_%
Nuclear	_34_%
Oil	_6_%
Renewable energy	
Captured methane gas	_0_%
Fuel cells	_0_%
Geothermal	_0_%
Hydroelectric (small)	_0_%
Solar	_0_%
Solid waste	_2_%
Wind	_0_%

0%

Renewable energy sources subtotal__%

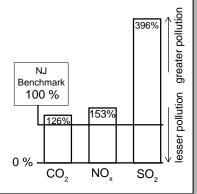
TOTAL 100%

Wood or other biomass

Air Emissions

The emission data given are default values and represent the average amount of air pollution associated with the generation of electricity in the region. This amount is compared to the New Jersey benchmark. The benchmark approximates the average emission rate for all electricity generation in New Jersey.

CO₂ is a "greenhouse gas" which may contribute to global climate change. SO₂ and NO_x react to form acids found in acid rain. NO_x also reacts to form ground level ozone, an unhealthful component of "smog."



Energy Conservation

(Insert company name) is not investing in energy conservation measures for this electricity product. Energy conservation measures means less electricity needs to be generated and pollution is avoided.

See your Terms of Service for further information regarding this label. You may also call XYZ Energy Supplier for additional information or a copy of the Terms of Service at (800) 555-5555.

APPENDIX A

Role of the Parties

Board of Public Utilities. Until the Program Administrator is established, the Board, in consultation with the NJDEP, will undertake responsibility for implementation of Phase I. If an independent Program Administrator is appointed, the Board, in consultation with the NJDEP, will assume an oversight role.

Electricity suppliers. New Jersey electricity suppliers must create disclosure labels and provide them to current and prospective retail customers. Each electricity supplier must also report semi-annually to the Board or Program Administrator; these reports will include notice of any new unit or system contracts. During Phase I-A, each electricity supplier will independently develop the environmental information to be disclosed on each of its product's label, including determining the electric generating units or systems used to meet its retail load, where this can be readily known, and the environmental characteristics associated with such units or systems. Electricity suppliers must maintain documentation to support disclosure labels, including (if applicable) a demonstration of how it performed product differentiation and how it met any environmental claims made about electricity products in New Jersey. Suppliers of existing products must have their environmental information verified by an independent verifier. Suppliers of new products, if they base their labels on environmental claims, must demonstrate that these claims are met and have these demonstrations verified by an independent verifier. During Phase I-B, the Program Administrator will assist in the implementation of environmental disclosure in accordance with the terms set forth in Appendix A.

PJM ISO. In Phase I, the Board and the Program Administrator will rely on PJM ISO generation and load data to verify disclosure labels.

Department of Environmental Protection (The NJDEP) will work with the Board in developing and updating New Jersey emissions benchmark(s) for disclosure labels and the default fuel mix and emissions values that the supplier of a new product shall disclose if no environmental claim is made for a new product, or when information about actual resources is unavailable. It will also work with the Board to develop processes for dispute resolution and processes for developing policy to address issues as they arise. The NJDEP will also aid in developing emissions and fuel mix data for New Jersey electric generating units that do not provide data to EPA. The NJDEP will also support environmental disclosure by working with representatives of environmental agencies in other states in the region to the end of achieving consistency, to the extent feasible, in the approaches taken to environmental disclosure in the various states.

Independent Verifiers - Certified Public Accounts (CPAs) who are licensed in New Jersey will provide verification services. During Phase I, a supplier of an existing product will be required to have the environmental information it intends to disclose on a product label verified before the information is used. If a supplier of a new product bases its label on environmental claims, the supplier must retrospectively demonstrate that these claims are met and have this demonstration

verified by an independent verifier. In all cases, the CPA who performs the verification must be independent of the electricity supplier for whom it performs the verification.

Program Administrator. As soon as practicable following adoption of this proposal, the Board will appoint a Program Administrator to assist with the implementation of the disclosure program. The duties of the Program Administrator will include, but not necessarily be limited to the following:

- 1. Review the disclosure labels developed by electricity suppliers for proper format, clarity and accuracy;
- 2. Verify that the electric power provided by electricity suppliers who have based disclosure labels on prospective information, met the fuel mix and emissions characteristics prospectively claimed;
- 3. Confirm that suppliers who based their labels for products on environmental claims, retrospectively demonstrated that these claims were met and that the demonstration was verified by an independent verifier;
- 4. Serve as a repository for the documentation that suppliers are required under Section VI and IX, to submit for unit contracts and system contracts;
- 5. Develop and update the default values to be used by suppliers;
- 6. Answer questions market participants might have regarding disclosure requirements;
- 7. Provide information to electricity suppliers on energy efficiency, including opportunities for obtaining and retiring emission credits;
- 8. Provide information to electricity suppliers on the retirement of emission credits generated under NJDEP's Open Market Emission Trading Program;
- 9. Establish a semiannual reporting system for suppliers, and update the system as environmental disclosure evolves and the reporting needs change;
- 10. Provide guidelines to suppliers for the preparation of annual reports; and
- 11. Maintain an Internet website which displays disclosure labels for all products sold in New Jersey as well as other relevant information.

APPENDIX B

Definitions of Fuel Types

Coal - Steam Turbine

Pumped Storage Hydro Powered by Coal

Gas Natural Gas - Steam Turbine

Natural Gas - Simple Combustion Turbine Natural Gas - Combined Cycle Combustion

Turbine LPG

Pumped Storage Hydro Powered by Gas

Hydro Pondage Hydro

Run-of-River Hydro

Nuclear Boiling & Pressurized Water Reactors

Pumped Storage Hydro Powered by Nuclear

Oil - Steam Turbine

Oil - Simple Combustion Turbine

Oil - Combined Cycle Combustion Turbine

Diesel

No. 2 Heating Oil

Jet Fuel Gasoline Kerosene

Pumped Storage Hydro Powered by Oil

Solar Photovoltaics

Fuel Cells Powered by Photovoltaics

Wind Turbines

Captured Methane Gas Landfill Gas

Sewage Gas

Agricultural Waste Digesters Fuel Cells Powered by Methane

Biomass Urban Wood Waste

Pallet Waste

Construction and Demolition Municipal Solid Waste Wood

Mill Residue Wood

Primary Wood Products Industries

Secondary Wood Products Industries

Harvested Wood

Site Conversion Waste Wood Sivicultural Waste Wood Agricultural Residue Sustainable Yield Wood

Geothermal Geothermal

Solid Waste Municipal Solid Waste

Incineration Tire Waste

Wave/Tidal Action Wave/Tidal Action

APPENDIX C -- Benchmark and Default Values

I. Default Values for the "Energy Source" Section of the Label ^a

Coal	49%
Gas	7%
Hydroelectric (large)	2%
Nuclear	34%
Oil	6%
Renewable Energy Sources:	
Captured methane gas	0%
Fuel Cells	0%
Geothermal	0%
Hydroelectric (small)	0%
Solar	0%
Solid waste	2%
Wind	0%
Wood or other biomass	0%
TOTAL	100%

II. Benchmarks and Defaults for "Air Emissions" Section of the Label

	BENCHMARKS b (pounds per megawatt-hour)	DEFAULTS ^c (pounds per megawatt-hour)
CO_2	1,213 ^d	1,525 °
NO _x	3.0 ^f	4.6 ^g
SO ₂	2.5 h	9.9 ⁱ

Footnotes

^a Data from USEPA Acid Rain Division, E-GRID v.1.2, 1996 Data, except that the percentage for unspecified fuels was divided equally among the three fossil fuels: coal, gas and oil; the percentage for unspecified renewables was allocated to the solid waste category; and the percentage for hydroelectric was allocated to the hydroelectric (large) category.

^b Based on 1996 emissions data from Department of Energy; Energy Information Administration publication EIA-0629 "State Electricity Profiles," p. 186 Table 1. 1996 Summary Statistics, February 1999.

^c Based on data from USEPA Acid Rain Division, E-GRID v.1.2, 1996 Data.

- ^d Average rate of emissions of all New Jersey electric generating units in 1996: 22,842,000 tons of CO_2 emitted divided by the 37,663,185 megawatt hours generated and then multiplied by 2,000 to convert tons to pounds = 1,213 pounds per megawatt-hour.
- $^{\rm c}$ Based on the 1996 average rate of emissions for electric generating units within the PJM Interconnection, adjusted for importation of power from ECAR Interconnection, and with the generation from New Jersey utility units removed: given that the 1996 PJM total generation is 238,402,036 megawatt-hours, and that of this 70,401,863 megawatt-hours were generated by utility units; and that 10,696,938 megawatt-hours were imported from ECAR, and 1,389,324 megawatt-hours were imported from SERC (i.e., that 4.83% of all power supplied with the PJM control area was imported power); and given that the 1996 average rate of emissions of CO_2 from non-utility generation within PJM is 1,436 pounds per megawatt-hour; and that the 1996 average rate of emissions of CO_2 within ECAR is 2,219 pounds per megawatt-hour and within SERC is 1,562 pounds per megawatt-hour, the adjusted average is 1,525 pounds per megawatt-hour.
- ^f Average rate of emissions of all New Jersey electric generating units, calculated for 1999, to take into account the effect of the new NO_x standards which first applied in the summer 1999 ozone season: given that the rate of growth of electricity generation is expected to continue to be 1.8% per year, the electricity generated in New Jersey in 1999 can be expected to be 39,733,825 megawatt-hours; given that approximately half of all New Jersey generation (i.e., 19,866,913 megawatt-hours) occurs during the ozone season and that half of all New Jersey generation occurs during the remaining months of the year; given that the NO_x emission rate during the ozone season under the new NO_x Budget Program is expected to be 2 pounds per megawatt-hour; and assuming the NO_x emission rate during the other seven months of the year remains at the level it was in 1996 (77,000 tons of NO_x emitted in 1996 divided by the 37,663,185 megawatt hours generated in 1996 and then multiplied by 2,000 to convert tons to pounds = 4.08 pounds per megawatt-hour); then the weighted average of the ozone season rates and the non-ozone season rates is 3.0 [(0.5 x 4.08) + (0.5 x 2) = 3.0].
- Based on the 1996 average rate of emissions for electric generating units within the PJM Interconnection, adjusted for importation of power from ECAR Interconnection, and with the generation from New Jersey utility units removed: given that the 1996 PJM total generation is 238,402,036 megawatt-hours, and that of this 70,401,863 megawatt-hours were generated by utility units; and that 10,696,938 megawatt-hours were imported from ECAR, and 1,389,324 megawatt-hours were imported from SERC (i.e., that 4.83% of all power supplied with the PJM control area was imported power); and given that the 1996 average rate of emissions of NO_x of non-utility generation within PJM is 4.11 pounds per megawatt-hour; and that the 1996 average rate of emissions of NO_x within ECAR is 7.02 pounds per megawatt-hour and within SERC is 4.78 pounds per megawatt-hour, the adjusted average is 4.6 pounds per megawatt-hour.
- ^h Average rate of emissions of all New Jersey electric generating units in 1996: 47,000 tons of SO_2 emitted divided by the 37,663,185 megawatt hours generated and then multiplied by 2,000 to convert tons to pounds = 2.5 pounds per megawatt-hour.

ⁱ Based on the 1996 average rate of emissions for electric generating units within the PJM Interconnection, adjusted for importation of power from ECAR Interconnection, and with the generation from New Jersey utility units removed: given that the 1996 PJM total generation is 238,402,036 megawatt-hours, and that of this 70,401,863 megawatt-hours were generated by utility units; and that 10,696,938 megawatt-hours were imported from ECAR, and 1,389,324 megawatt-hours were imported from SERC (i.e., that 4.83% of all power supplied with the PJM control area was imported power); and that given that the 1996 average rate of emissions of SO₂ from non-utility generation within PJM is 9.74 pounds per megawatt-hour, and the 1996 average rate of emissions of SO₂ within ECAR is 15.05 pounds per megawatt-hour and within SERC is 9.33 pounds per megawatt-hour, the adjusted average is 9.9 pounds per megawatt-hour.

APPENDIX D

New Jersey Non-Utility Generator Environmental Disclosure Default Methodology

The environmental disclosure provisions in New Jersey require electric power suppliers to disclose information about the environmental characteristics of their energy to all customers. During Phase I of the program, environmental characteristics disclosed by electric power providers are to be based on publicly available emissions and fuel mix information from the U.S. Environmental Protection Agency (EPA) and Energy Information Administration (EIA). However, emissions and fuel mix information for non-utility electric generating facilities (NUGs) is currently held confidential by EIA. In order for electric power suppliers to account for energy from NUG contracts in calculating their environmental disclosure information, they will need to either receive actual emissions information from their NUG energy sources directly, or, in cases where such information cannot be obtained, apply reasonable default emissions and fuel mix assumptions to NUG energy.

The discussion below identifies reasonable emissions and fuel mix assumptions that could be used as defaults for purchases from NUGs located in the state of New Jersey. The methodology utilizes aggregate information from EIA to identify a reasonable fuel mix default, emissions data from New Jersey DEP to identify reasonable emission rate defaults for NO_x and SO₂, and EPA greenhouse gas emissions factors to identify reasonable emission rate defaults for CO₂.

<u>Default Fuel Mix Methodology</u>

A appropriate default fuel mix can be estimated using publicly available EIA data. Although EIA does not publish NUG emissions or fuel mix data at the facility level, they do provide fuel mix information aggregated at the state level. EIA information indicates that a reasonable fuel mix default for New Jersey NUGs is¹:

Coal	6%
Oil	2%
Gas	85%
Landfill gas	2%
MSW	5%

The percentages above for gas and oil are calculated directly from the EIA information on New Jersey NUG generation.

EIA holds confidential the information on coal and hydro generation in New Jersey because there are only two coal and a few small hydro NUG facilities in the state. However, the total coal & hydro generation number can be back calculated based on subtracting all other sources from the state NUG generation total. This calculation reveals 1,095,000 MWh of coal and hydro generation, which is equal to 6% of the NUG generation total. Indications are that very little NUG hydro generation exists in New Jersey, so it can be conservatively assumed that all this generation is coal.

EIA lumps landfill gas, MSW, and wood together in one category which comprises 7% of the New Jersey NUG generation total. Additional data from EIA on renewable generation sources indicates that there is no NUG wood or wood waste generation in the state.² Unfortunately, EIA information does not provide a basis for differentiating landfill gas generation from Municipal Solid Waste (MSW) combustion. However, it is likely that MSW accounts for the majority of this category, based on the generally smaller size of landfill gas generating capacity. A reasonable assumption would be that 70% of the 7% is actually MSW, making MSW 5% of the state NUG total and landfill gas 2%.

¹ EIA data available at: http://www.eia.doe.gov/cneaf/electricity/epav2/epav2t58.txt

² See. Energy Information Administration, "Challenges of Electric Power Industry Restructuring for Fuel Suppliers," September, 1998. (Available at: http://www.eig.doe.gov).

Default Methodology for NO_x and SO₂

New Jersey DEP collects annual fuel consumption and NO_x and SO₂ emissions data from all significant stationary combustion sources in the state. Unfortunately, the database containing this information does not identify which sources are NUGs. However, based on a review of published EIA lists as well as a list of NUG sources included in the New Jersey NO_x Budget allocation, 25 NUG sources have been identified from the DEP database (see attachment A).³

The information collected by DEP on these sources includes the type and quantity of fuel burned during the year and the tons on NO_x and SO_2 emitted during the year. This information along with generic fuel heat content information obtained from EIA,⁴ provides a basis for estimating the Btus of fuel consumed by each facility. Knowing the annual emissions and annual Btus provides a basis for developing lbs/mmBtu NO_x and SO_2 emission rates. These rates can then be converted to lbs/MWh based on assumptions about the heat rate (efficiency) of power generation facilities. Typical coal fired power plants operate with an efficiency of about 10,000 Btu/kWh, new natural gas combined cycle facilities operate at efficiencies of 8,000-9,000 Btu/kWh and stoker boilers typically used for MSW combustion operate in the 12,000-14,000 Btu/kWh range. For the conversions here, 10,000 Btu/kWh is assumed for coal and oil, 9,000 Btu/kWh is assumed for gas and 13,000 Btu/kWh is assumed for MSW combustion. The table below illustrates 1997 DEP data for fuel consumption and emissions by fuel type as well as the emissions rates calculated based on this data (See Attachment A for further detail).

# Plants		Fuel C	onsumption		Emiss	ions		Emission	Rates	
	Fuel Type	Fuel units	Fuel Use	mmBtu	NOx tons	SO2 tons	NOx lb/mmBtu	SO2 lb/mmBtu	NOx lb/MWh	SO2 lb/MWh
14	2FO	MGALS	9,581	1,328,833	148	107	0.22	0.161	2.23	1.61
4	6FO	MGALS	11,852	1,774,121	2,015	802	2.27	0.904	22.71	9.04
1	GSOLN	MGALS	0.42	52	0	0	1.68	0.088	16.82	0.88
7	KERO	MGALS	2,138	288,689	12	6	0.08	0.042	0.82	0.42
19	NG	MMCF	115,577	118,119,595	3,666	93	0.06	0.002	0.56	0.01
4	PG	MMCF	66,082	66,081,867	5,148	1,635	0.16	0.049	1.40	0.45
2	BIT Coal	TONS	958,817	19,679,719	1,729	1,419	0.18	0.144	1.58	1.30
3	MSW	TONS	1,427,048	14,270,479	1666.58	267.79	0.23	0.038	3.04	0.49
	·	·		221.543.356	14.384	4.330	0.13	0.04	•	•

³ Since this list is probably not inclusive of all NUGs in the state, it was not used as the basis for determining the NUG fuel mix above. However, the Btu's of fuel consumed by fuel type according to this list indicates a very similar fuel mix as that identified using EIA generation data. The fuel mix of the 25 plants is: 83% gas, 9% coal, 1.5% oil, and 6% MSW.

⁴ See Energy Information Administration, Annual Energy Outlook 1999, Appendix H. The heat content values used in this analysis are provided in attachment A.

Although some of the data in the table above appear anomalous (residual fuel oil emissions rates are unreasonably high) the data provides a basis for identifying potential default NO_x and SO_2 emission rate characteristics for New Jersey NUGs. Cutting it up by major fuel type and rounding to tenths, the data indicate that the following emission rates would be reasonable for NUG defaults for coal, oil and gas generation:

	NO_x (lbs/MWh)	SO ₂ (lbs/MWh)
Coal	2.0	1.5
Oil	3.0	2.0
Gas	1.0	0.05

For MSW, the heat content was estimated to be 50% of the heat content of coal. Based on this estimation, the NO_x emission rate for MSW is higher than coal (3.0 lbs/MWh) and the SO_2 emissions rate is lower (0.5 lbs/MWh). These data are somewhat less certain that for coal and oil due to estimations of both plant efficiency and the heat content of waste that could be somewhat variable. Nonetheless, since the rates are in the ballpark of rates for coal, the data suggest that assigning MSW emissions rates compatible with coal is not unreasonable.

If an overall average emissions rate is desired for the default, then treating landfill gas and MSW as gas and coal, respectively, the weighted average NO_x and SO_2 emissions rates for NUG generation in New Jersey based on the fuel mix identified above and rounded up to the nearest tenth would be:

NO_x: [(0.87*1.0)+(0.02*2.2)+(0.11*1.6 lb/MWh)]=**1.2 lbs/MWh**

SO₂: [(0.87*.05)+(0.02*2)+(0.11*1.5 lb/MWh)] = 0.3 lbs/MWh

Default Methodology for CO₂

Although actual CO₂ emissions data is not available for New Jersey NUG sources, relatively accurate CO₂ lb/MWh emission rate estimates can be derived based on fuel type and power plant efficiency. EPA's *Inventory of Greenhouse Gas Emissions and Sinks* provides emissions factors for estimating CO₂ emissions rates for coal, oil and gas combustion, as follows:⁵

coal: 207 lbs/mmBtuoil: 168 lbs/mmBtugas: 117 lbs/mmBtu

Assuming efficiencies of 9,000 Btu/kWh for combined cycle gas and 10,000 Btu/kWh for relatively new oil and coal facilities, appropriate default emissions rates would be:

Coal: 2,070 lbs/MWh
Oil: 1,680 lbs/MWh
Gas: 1,053 lbs/MWh

Although no specific factors are readily available for CO₂ emissions associated with burning landfill gas or MSW, it is probably appropriate to treat landfill gas as natural gas and MSW as coal for this purpose.

If an overall average emissions rate is desired for the default, then treating landfill gas and MSW as gas and coal, respectively, the weighted average CO₂ emissions rate for NUG generation in New Jersey rounded to the nearest hundred would be:

[(0.87*1,053)+(0.02*1,680)+(0.11*2,070 lb/MWh)=1,200 lbs/MWh]

⁵ See U.S. Environmental Protection Agency, "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-1993," 1994. All EPA data provided in kg C/mmBtu. Conversion based on 3.67 kg CO₂/kg C and 2.205 lbs CO₂/ kg CO₂. EPA provides separate emissions factors for distillate and residual fuel oil, which are averaged together to obtain a composite number for oil of 168 lbs/mmBtu.

Reasonable NUG defaults Summary

Fuel Mix

Coal	6%
Oil	2%
Gas	85%
Landfill gas	2%
MSW	5%

Emission Rates

	NO _x (lbs/MWh)	SO ₂ (lbs/MWh)	CO ₂ (lbs/MWh)
Coal	2.0	1.5	2,070
Oil	3.0	2.0	1,680
Gas	1.0	0.05	1,053
Weighted Average	1.2	0.3	1,200

Appendix E Label Update and Distribution Timing Requirements

HISTORICAL LABEL			
Date label must be updated & distributed to customers	Reporting period on label		
September 15, 1999	July 1, 1998 - June 30, 1999		
April 1, 2000	January 1, 1999 - December 31, 1999		
October 1, 2000 July 1, 1999 - June 30, 2000			
April 1, 2001 January 1, 2000 - December 31, 2000			
October 1, 2001 July 1, 2000 - June 30, 2001			

NEW PRODUCT LABEL (CLAIM)				
	Date of label update	Reporting period on label	Distribution to customer	
Initial prospective label	Commencement of marketing	12 month period for which power will first be provided in New Jersey	Commencement of marketing & six months after power is first provided.	
First historical label	3 months after the end of the 12 month period	The same time period used on the prospective label (above).	3 months after the end of the 12 month period	
Future historical labels	The next semiannual time set forth in the HISTORICAL table above			

NEW PRODUCT LABEL (DEFAULT)					
	Date of label update	Reporting period on label	Distribution to customer		
Initial prospective label	Commencement of marketing	until December 31, 2000.	Commencement of marketing, then each six months thereafter until the first historical label is used.		
First historical label	April 1, 2001	Jan 1, 2000 through December 31, 2000	April 1, 2001		
Future historical labels	The next semiannual time set forth in the HISTORICAL table above				